

HORVATH, Istvan

Reorganization of forest management and exploitation
in Hungary. Erdo 13 no.6:241-244 Je '64.

1. Deputy Department Chief, National Main Directorate
of Forestry, Budapest.

HUNGARY

ROZSOS, Istvan, Dr, HORVATH, Istvan, Dr, SZUTRELY, Antal, Dr; Jaras Hospital of Keszthely, Surgical Ward (Keszthelyi Jarasi Korhaz, Sebeszeti Osztaly).

"The Problem of Surgical Asepsis-Antisepsis in a District Hospital."

Budapest, Magyar Sebeszet, Vol XVI, No 2, May 63, pages 94-97.

Abstract:[Authors' German summary] The occurrence of wound infections among the surgical cases of a district hospital over a five-year span is examined. Among aseptic operations, infection of the wound was 2.4 per cent. This good result is probably due to the circumstance that during the entire time the same four surgeons operated exclusively using atraumatic surgical techniques continually and the number of patients was relatively small. Also, strictly aseptic-antiseptic techniques were used and antibiotics were used very conservatively. 9 Hungarian, 3 Western references.

1/1

ca

11N

Influence of oral saccharin on blood sugar. Ernest Kun and Istvan Horvath (Univ. Budapest). *Proc. Soc. Exptl. Biol. Med.* 66: 175-7 (1947).—Oral administration of an aq. soln. contg. 80 mg. of saccharin caused a decrease of 12-10% in the blood sugar of normal individuals. It is suggested that this is because of the sweet taste, which may act by means of a reflex mechanism to provoke insulin secretion.
L. E. Gilson

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SUBJECT INDEX	AUTHOR INDEX	TITLES INDEX	CROSS REFERENCE
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

CA

117

The role of phosphate in the polymerization of actin from

frog muscle. I. Horvath, J. Koch, and J. Szerb (Univ. Budapest, Hung.). *Hung. Acta Physiol.* 2, 131-40 (1949) (in English). -Actin prepd. by a modified Straub method (C.A. 41, 12584) and its polymerization under various conditions were examd. The change of viscosity in the actin soln. was detd. by an Ostwald viscometer. The polymerization which takes place at 0° in the presence of a salt mixt. (0.1 M KCl and 0.001 M MgCl₂) was completely prevented when a 0.5% NH₄ molybdate (I) soln. was added to solns. contg. 0.05-0.06 mg./ml. actin. Smaller amts. of NH₄ molybdate caused partial inhibition. When the temp. was raised to 14°, I had a contrary effect and promoted

polymerization of actin, even in the absence of salts. Polymerization in the latter case was so rapid that it could not be followed by the viscometer. The rate of polymerization depends on the amt. of I used. Higher concns. of I had a pptg. effect on proteins. Other pptg. and denaturing agents also increased the viscosity of actin solns. To ascertain whether the effect of I is actually a pptn. denaturation or real polymerization, the viscosity of actin polymerized by a salt mixt., I, and EtOH at different pressures was measured. The correlations were quite identical for polymerizing by a salt mixt. or by I. For actin extd. from frog muscle polymerization at 0° occurred in the presence of 0.1 M KCl only after adding 0.005 M MgCl₂. At 14° the polymerization occurred without the addn. of the Mg salt. The polymerization was not inhibited by oxidizing agents. Various ions were capable of replacing Mg ions in the polymerization. In the presence of 0.1 M KCl at 0° the ions tested induced polymerization at a concn. of 0.0002 M and showed activating power in the following sequence: Mn, Co, Mg, Fe, and Ni. The results are summarized by stating that reducing groups seem to play no role in the polymerization of actin. The polymerization is caused by a reaction in which the phosphate group has a central role. I. F.

HORVATHE, I.

(5496)

A Budapesti Tud. Egyetem, II. Sz. Belklinika, Janak Kozlemen. A kalcium- es a calcium- anyagcsere valtozasa penicillinkezeles kapcsan Alteration of the potassium and calcium metabolism under influence of penicillin Orvosi Hetilap 1949, 90/4 (123-125) Tables 2 In penicillin treatment the serum calcium remained unchanged; however, the serum potassium increased to such a degree that the K/Ca quotient, normally varying between 1.86 and 2.2, rose to a maximum of 2.8. This is due either to an allergy developed during treatment or to a primary effect of penicillin.

Fekete - Budapest

So: Excerpta Medica, Vol. II, no. 10, Sect. II, Oct. 1949

LA

Hormonal influences on glucose resorption from the intestines. I. Methodical principles. Daily variations in the absorption of sugar. The proportion between the absorption of glucose and xylose. I. Horvath and G. Wix (Univ. Budapest). *Acta Physiol. Acad. Sci. Hung.* 2, 435-438 (1951) (in English). Intestinal resorption was studied by transfusing the soln. under test through the small intestine of the adult rat. Resorption of water and Cl ion by the intestine is relatively const. throughout the day. Glucose resorption increases slowly during the day until a max. is reached at 3 p.m. It remains const. at this level until approx. 7 p.m. The ratio of glucose to xylose resorbed by the intestine is 5.5 to 1. Most of the xylose is resorbed during the first transfusion period. II. Effect of insulin. *Ibid.* 445-50. -Insulin prevents the resorption of glucose from the intestine, but the hypoglycemia which follows causes the resorption of glucose to increase. If insulin hypoglycemia is prevented by an injection of glucose, the increase in glucose resorption is not observed. III. The effect of adrenaline on the resorption of glucose. G. Wix, G. Fekete, and I. Horvath. *Ibid.* 451-7. -Adrenaline, when injected subcutaneously in doses of 50 γ to 100 γ per rat, increases the intestinal resorption of glucose. Neither epinephrine, at a dose of 20 γ per 100 g. of rat nor dinitro-

phenol at doses of up to 5 mg. per kg., influenced glucose resorption. It is postulated that adrenaline increases the resorption of glucose by means of its specific glycogen mobilizing effect. IV. The effect of cortis on the resorption of glucose. G. Wix, G. Fekete, I. Bonta, and I. Horvath. *Ibid.* 459-67. -In normal adult rats, glucose resorption is not affected by the injection of pericorten. After adrenalectomy, the intestinal resorption of glucose is diminished, but it tends to return to normal when a 0.9% NaCl soln. is transfused through the intestine before the glucose soln. Treatment with NaCl has an effect similar to that produced by pericorten in adrenalectomized rats. When insulin and pericorten are administered together to normal rats, the glucose resorption is substantially increased. N. R. S.

HORVATH, I.

Hungarian Technical Abst.
Vol. 6 No. 1
1954

18. Evericin, a new antibiotic — *Evericin*, a new antibiotic — M. Kollár and I. Horvath. (Hungarian Journal of Chemistry — *Magyar Kémiai Folyóirat* — Vol. 59, 1953, No. 1, pp. 31-34)

An as yet unidentified strain of *Actinomyces* was found to produce an antibiotic substance, *evericin*. The bacterial spectrum of *evericin* resembles that of streptomycin. The active material was isolated from the fermentation broth by a column of carboxylic ion exchange resin from which it could be eluted with dilute hydrochloric acid. The crude hydrochloride was purified by chromatography on an activated carbon-diatomaceous earth column. Further purification was achieved by crystallizing the helianthate from dilute methanol. *Evericin* is in part a polypeptide. Four basic amino acids could be detected by the paper chromatography of the acid hydrolysate. All differed from the common basic amino acids. A guanidine group is attached to the non-peptide part of the molecule.

M. B.

HORVATH, I.*; MAGYAR, K.; GADO, I.; SZANTO, J.; VADKERTY, T.

The influence of iron upon oxytetracycline production by *Streptomyces rimosus*. Acta microb. hung. 5 no.3:253-260 1958.

1. Research Institute of the Pharmaceutical Industry, Budapest.
(IRON, eff.

on oxytetracycline prod. by *Streptomyces rimosus*)
(OXYTETRACYCLINE, metab.

Streptomyces rimosus, eff. of iron on prod.)

(STREPTOMYCES, eff. of drugs on
iron on oxytetracycline prod. in *Streptomyces rimosus*)

* *delivered* *jk*

HORVATH, I.
Delven

COUNTRY : Hungary
CATEGORY :

H-17

ABS. JOUR. : RZKhim., No. 1959, No. 87573

AUTHOR : Horvath, I.; Gado, I.; Szentirmai, A.

INST. : Hungarian Academy of Sciences

TITLE : Production of Oxytetracycline in Synthetic Medium.

ORIG. PUB. : Acta microbiol. Acad. scient. hung., 1958, 5, No 4, 317-327

ABSTRACT : A nutrient medium of simple composition has been developed for experimental, fermentative production of oxytetracycline. It was found that with a constant ratio of glycine and carbohydrate, the yield depends upon concentration of phosphate, which accelerates consumption of the ingredients of the nutrient medium.

From authors' summary.

CARD:

210

HORVATH, Istvan

Remark on the role of industrial economics. Erdo 14 no.2:58-59
F. '65.

1. Deputy Department Head, National Main Directorate of Forestry,
Budapest.

HORVATH, Istvan

Combined data of forestry production plans. Erdo 14 no.5:97-108 Mr '65.

1. Deputy Chief, Department of Forestry Administration of the Main Directorate of Forestry, Budapest.

HORVATH, I.; SZENTIRMAL, A.; BAJUSZ, S.; PARRAGH, E

Production of inductive amylase by penicillium chrysogenum.
Acta microb. hung. 7 no. 1:19-29 '60.

1. Research Institute of the Pharmaceutical Industry, Budapest.
(AMYLASES chem.)
(PENICILLIUM metab.)

GADO, I.; SZENTIRMAI, A.; STECZEK, Katalin; HORVATH, I.

Metabolic studies with streptomyces rimosus. Acta microbiol. acad. sci. hung. 8 no.3:291-302 '61.

1. Research Institute of the Pharmaceutical Industry, Budapest.
(STREPTOMYCES metab) (OXYTETRACYCLINE metab)

GADO, I.; HORVATH, I.

Oxytetracycline production in different amino acid containing media.
Acta microb. 9 no.1:1-9 '62.

1. Department of Microbiology (Head: I. Horvath), Research Institute
for the Pharmaceutical Industry, Budapest.
(OXYTETRACYCLINE metabolism) (AMINO ACIDS pharmacology)

HORVATH, I.; GADO, I.; SZENTIRMAI, A.

Valine and isoleucine metabolism of *Streptomyces rimosus*. Acta microb.
9 no.1:11-22, 1962.

1. Department of Microbiology (Head: I. Horvath), Research Institute
or the Pharmaceutical Industry, Budapest.
(VALINE metabolism) (LEUCINE metabolism) (STREPTOMYCES metabolism)

SZENTIRMAI, A.; HORVATH, I.

L-serine deaminase from *Streptomyces rimosus*. Acta microb. 9 no.1:
23-30 '62.

1. Department of Microbiology (Head: I. Horvath), Research Institute
for the Pharmaceutical Industry, Budapest.
(HYDRASES chemistry) (STREPTOMYCES chemistry)

SZENTIRMAI, A.; HORVATH, I.

L-threonine deaminase from *Streptomyces rimosus*. *Acta microb.* 9 no.1: 31-37 '62.

1. Department of Microbiology (Head: I. Horvath), Research Institute for the Pharmaceutical Industry, Budapest.
(HYDRASES chemistry) (STREPTOMYCES chemistry)

HORVATH, I.; SZENTIRMAI, A.

Glucose catabolism of *Streptomyces rimosus*. *Acta microbiol. Hung.*
9 no.2:105-116 '62.

1. Department of Microbiology (Head: I. Horvath), Research Institute
for Pharmaceutical Industry, Budapest.

(GLUCOSE)	(STREPTOMYCES)	(GLUCOSEPHOSPHATE DEHYDROGENASE)
(ISOMERASES)	(HEXOKINASE)	(ALDOLASE)
(DEHYDROGENASES)	(HYDRO-LYASES)	(PHOSPHOTRANSFERASES)

HORVATH, I.; VARGA, J.M.

Trichothecinase. Acta microbiol. Hung. 9 no.2:117-121 '62.

1. Department of Microbiology (Head: I. Horvath), Research Institute
for Pharmaceutical Industry, Budapest.

(FUNGICIDES) (ANTIBIOTICS) (ESTERASES)

RECORDS

MACYAR, Karelly, SEVERTICZKI, Jedit, and HORVATH, Istvan, of the Research Institute for the Pharmaceutical Industry (Director: VARGHA, J.) Budapest [Original version not given].

"The Synergism of Viridogrisein and Griseoviridin"

Budapest, Acta Microbiologica, Vol. 7, No. 3, pp 247-250, 1962.

Abstract [English article, authors' English summary]: The synergism between viridogrisein and griseoviridin has been studied. A new paper chromatographic method has been worked out to study whether in the broth or the crude concentrate of an antibiotic complex components synergism were contained. [14 references, all Western].

2/2

HORVATH, Imre

Hydraulic model tests on air-blown aeration basin. Hidrologiai
kozlony 45 no.3:134-142 Mr '65.

1. Scientific Research Institute of Water Resources Development,
Budapest.

1/1

HUNGARY

GADO, Istvan, SAVTCHENKO, Galina, HORVATH, Istvan; Research Institute for Pharmaceutical Chemistry, Department of Microbiology (head: HORVATH, I.) (Gyógyszeripari Kutató Intézet, Mikrobiológiai Osztály), Budapest.

"Agar-Diffusion Method for the Screening of Anticancer Substances by Phage Induction."

Budapest, Acta Microbiologica Academiae Scientiarum Hungaricae, Vol. XII, No 4, 1965/66, pages 363-365.

Abstract: [English article, authors' English summary modified] A simple, semi-quantitative agar diffusion method was worked out for the screening of anticancer substances by phage induction which is suitable for mass examinations. The method is based on the following. A solid medium is infected with an appropriate mixture of the lysogenic and indicator strains; under the influence of active compounds, the number of plaques is significantly increased in the surroundings of the wells made in the agar plate. 1 Hungarian, 5 Western references. [Manuscript received 23 Aug 65.]

1/1

L 34958-66 EWP(c)/EWP(k)/EWP(h)/EWP(y)/EWP(t)/EWP(l)/ETI LJP(c) JD
 ACC NR: AP6026660 SOURCE CODE: HU/0014/65/098/008/0337/0341

AUTHOR: Horvath, Janos (Graduate metallurgical engineer) 29
2

ORG: Directorate for Ferrous Metallurgy /directed by Janos Horvath/, Ministry for
 Metallurgical and Machine Industry (Koho es Gepipari Miniszterium Vaskohaszi Igaz-
 gatosag)

TITLE: Current problems in the production and development of iron and steel
manufacture 10

SOURCE: Kohaszi lapok, v. 98, no. 8, 1965, 337-341

TOPIC TAGS: iron, steel, metallurgic conference

ABSTRACT: This article is the text of the inaugural lecture delivered by the author
 at the Conference on Crude Iron and Steel Manufacture, held 17 May 1965 in Balaton-
 szeplak. The production, development, and expansion plans of the Hungarian ferrous
metallurgical industry were outlined with special emphasis on improvements and new
 facilities. [JPRS: 32,491]

SUB CODE: 11 / SUBM DATE: none

Card 1/1 *dy*

0976 2356

L 29694-66 ETC(f) JW

ACC NR: AP6020860

SOURCE CODE: HU/0034/65/013/001/0019/0046

AUTHOR: Horvath, Janos

ORG: Institute for Theoretical Physics, Jozsef Attila Scientific University, Szeged
(Jozsef Attila Tudományegyetem Elméleti Fizikai Intézete)

TITLE: Problem of entropy increase

SOURCE: Magyar fizikai folyóirat, v. 13, no. 1, 1965, 19-46

TOPIC TAGS: entropy, thermodynamic equilibrium

ABSTRACT: The density operators characterizing the fine-particle and the coarse-particle statistical many-particle systems, respectively, indicate that the entropy of the former does not increase while that of the latter increases until a maximum corresponding to the thermodynamic equilibrium is attained. It was shown that the argument of Fain, V. M. (UFN SSSR, v. 79, 1963, p 641) against this principle are erroneous. This conclusion was based on an evaluation of relevant literature references and the law of density-operator evolution. Orig. art. has: 155 formulas.

[JPRS]

SUB CODE: 20 / SUBM DATE: 18Apr64 / ORIG REF: 005 / OTH REF: 045

Card 1/1 CC

L 33782-00

ACC NR: AT60251144

SOURCE CODE: HU/2504/65/051/01-/0193/0210

AUTHOR: Horvath, J.--Khorvat, Y.

ORG: Mining Research Institute, Budapest

TITLE: Formation of axially symmetrical loading in the area surrounding mine entrances with circular cross section

SOURCE: Academia scientiarum hungaricae. Acta Technica, v. 51, no.1-2,1965,193-210

TOPIC TAGS: mining engineering, elasticity, plasticity, petrology

ABSTRACT: The problem was discussed theoretically and on the basis of actual investigations. The influence of the mechanical characteristics of the rocks forming the entrance was investigated and the conditions under which they behave elastically and plastically were determined. The calculations, described in detail and illustrated by numerical examples, enable the calculation of the design for optimum load-bearing constructions. Orig. art. has: 10 figures, 33 formulas, 6 tables.

JPRS: 33,544

SUB CODE: 08, 20 / SUBM DATE: 05Nov63 / ORIG REF:002 / SOV REF:001 / OTH REF:004

Card 1/1

L 32193-00 RM

ACC NR: AP6020845

SOURCE CODE: HU/0036/65/072/003/0191/0204

AUTHOR: Moszaros, Bela (Candidate of biological sciences; Adjunctus); Horvath, J. (Adjunctus)

ORG: /Moszaros/ Kossuth Lajos University, Debrecen (Kossuth Lajos Tudományegyetem);
/Horvath/ Eotvos Lorand University (Eotvos Lorand Tudományegyetem)

TITLE: Some aspects of current trends in biology

36
E

SOURCE: Magyar tudomány, v. 72, no. 3, 1965, 191-204

TOPIC TAGS: protein, biologic metabolism, genetics, biophysics, biochemistry, nucleic acid

ABSTRACT: The current confusion in biology, attributed partly to the previous dogmatism of Marxist-Leninist philosophy, is discussed. The basic principles of the Darwin-Mitchurin and the "molecular genetics" approach are listed. In chapter two, an argument is presented to show that the results of molecular genetics serve as proof of the correctness of the D-M approach to genetics that the principal material basis of inheritance is protein metabolism. The controversy in the field of genetics is one of ideology as well. It is part of the controversy between Darwinism and anti-Darwinism and it will continue until a final victory of the biological trend based on materialism is achieved. A discussion of the role of nucleic acids in chapter three is

Card 1/2

L 32193-66

ACC NR: AP6020845

followed by a chapter dealing with the one-sided interpretation of the place of "molecular biology" in the sciences. Research on the molecular level corresponds to the fields of biophysics and biochemistry; they are important but are too fragmented to be able to provide information on the essence of life as biological methods may. In chapter five, some misunderstandings encountered in the evaluation of Mitchurin's theories, are discussed. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 2/2

L 31826-66 IJP(c)

ACC NR: AP6021176

SOURCE CODE: HU/0034/65/013/002/0195/0206

AUTHOR: Horvath, János

ORG: Institute for Theoretical Physics, Jozsef Attila Scientific University, Szeged
(Jozsef Attila Tudományegyetem Elméleti Fizikai Intézet)

TITLE: Notes on the theory for the absorption and emission spectra of fluorescent molecules

SOURCE: Magyar fizikai folyoirat, v. 13, no. 2, 1965, 195-206

TOPIC TAGS: absorption spectrum, emission spectrum, fluorescence, radiation, specific heat, solvent action

ABSTRACT: It was shown that the equations characterizing the active absorption spectrum and the emission spectrum of fluorescent molecules can be derived by employing the method utilized by Blohincev, D., (JEPT USSR, v. 4, 1939, 459) in formulating the theoretical basis of the Ljovsin mirror-symmetry law, by taking into account certain time-correlation and fluctuation phenomena occurring during the radiation processes. The results of these calculations also yielded the generalized Stepanov radiation law. The vibrational specific heat, and the relaxation time for the thermal interactions between the molecules in the solvent were calculated. The author thanks Istvan Ketskemeti for calling attention to the problems and László Szalay, József Dombi and László Kozma for valuable discussion as well as for publication of experimental results. Orig. art. has: 34 formulas, and 1 table. [JPRS]

SUB CODE: 20 / SUBM DATE: 06Sep64 / ORIG REF: 005 / OTH REF: 004 / SOV REF: 003

Card 1/1 MC

TEST AND INSPECTION METHODS										PROCESSING AND PREPARATION METHODS									
<p>CA HORVATH, S. 11-C</p> <p style="text-align: center;">Isolation and properties of raphania, an antibacterial substance from radish seed. G. Ivánovics and S. Horvath (Univ. Szeged, Hungary). <i>Proc. Soc. Exptl. Biol. Med.</i> 66, 623-30(1947).—See <i>C.A.</i> 41, 7445a. L. E. Gilman</p>																			
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.</p>										<p>21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40.</p>									

HORVATH, B. *1947* *11C*

CA

PROCESSES AND PROPERTIES INDEX

Raphanin, an antibacterial principle of the radish.
 -Geo. Ivanovics and Stephen Horvath (Univ. Sargent, Hungary). *Nature* 160:267-8(1947).--Aq. exts. of radish seeds, when added to plates contg. *Staphylococcus* and *Bact. coli*, gave a very marked zone of inhibition in both cases, while exts. of radish roots and leaves did not affect the growth of the bacteria. This antibacterial principle was isolated as a liquid from the aq. ext. of radish seeds and named raphanin. It is heat-resistant; b. p. 135°; yield is 3 g. per kg. of seeds. It is freely sol. in water, ethanol, butanol, butyl acetate, and HCOH; moderately sol. in ether, and slightly sol. in petr. ether.
 • Formulas: $C_{11}H_{17}NO_5$ and $C_{11}H_{17}NO_5$. It is neutral; [α]_D²⁰ in ethanol -14°; it is stable between pH 3 and 8. It was crystal. by shaking with 0.1 N baryta and neutralizing with H₂SO₄; recrystd. from ethanol and then from water. This crystal. substance had m.p. 192-3° at decomposition; formula $C_{11}H_{17}NO_5$. A 1 mg. per ml. soln. of raphanin gave a zone of inhibition with various bacteria. Raphanin is highly active in preventing the germination of various plant seeds and in hindering the growth of tissue culture from rabbit testicle. It is moderately toxic to mice and to isolated frog heart. Dorothy A. Meyer

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

EXTRACTS

EXTRACTS

HOPVATH, I. 1951

(Path. Inst. U. of Szeged)

" A Physical Method of Demonstration of Virus Proliferation."

Acta Physiol. (Budapest), 1951 2/1 suppl. (57-58)
No abst. in Exc. Med.

HORVATH, I.; SZOLLOSY, E.; IVANOVICS, G.

Distribution of the receptor substance of the influenza and related viruses in the tissue-elements of different animal species. I. The virus adsorbing capacity and agglutinability of the erythrocytes of various vertebrates. Acta physiol.hung. 2 no.1:77-86 1951. (CML 20:9)

1. Of the Institute of Pathology and Microbiology of Szeged University.

KOCH, A.; HORVATH, S.; IVANOVICS, G.

An attempt to detect the virus infection of the chick embryo by
registrating the refractive power of the allantoic fluid. Acta physiol.
hung. 2 no.3-4:525-531 1951. (CML 22:1)

1. Of the Institute of Pathology and Microbiology of Szeged University.

SZOLLOSY, E.; INVANOVICS, G.; HORVATH, S.

Distribution of the receptor substance of influenza and related viruses in tissue elements of different animal species. II. The virus absorbing capacity of the respiratory tract of various vertebrates. Acta physiol. hung. 3 no.2:431-440 1952. (CML 24:3)

1. Of the Institute of Pathology and of the Institute of Microbiology, Szeged University.

IVANOVICS, G.; HORVATH, S.

The structure of the capsule of B. megatherium. Acta physiol. hung.
4 no.1-2:175-186 1953, (CIML 25:1)

1. Of the Institute of Microbiology of Szeged University.

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Biological Chemistry

Chemical structure of the capsule of *Bacillus anthracis* and
Bacillus megatherium. L. G. Ivánovics and L. Horváth,
L (Med. Univ., Szeged). *Acta Physiol. Acad. Sci. Hung.* 4,
401-8(1953)(in English); cf. *C.A.* 47, 8819c.—The —COOH
groups of the D-glutamic acid polypeptide which forms the
capsule of *B. anthracis* and *B. megatherium* are not free if one
judges by the staining reactions of the capsular material.
M. O. Horowitz

HORVATH, S.

A new sensitive method of the rolling drum method for influenza
virus titration. Acta microb. hung. 1 no.4:481-494 1954.

1. Institute of Microbiology, University Medical School Szeged.
(INFLUENZA VIRUSES
titration, rolling drum method)

HORVATH, S.; ALFOLDI, L.

A new sensitive method of phage titration on plastic trays. Acta. microb. hung. 1 no.4:495-510 1954.

1. Institute of Microbiology, University Medical School, Szeged.
(BACTERIOPHAGE
titration on plastic trays)

MORVATH, I.

The protozoa fauna virus infected by and free of the paprika virus of Szeged.
In German. p. 193.
(ACTA BIOLOGICA. Vol. 2, no. 1/4, Dec. 1956, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.
Uncl.

HORVATH, S.; BALAZS, V.

Influenza in Szeged, 1953-54. In English. p. 241. ACTA
MICROBIOLOGICA. (Magyar Tudományos Akadémia) Budapest.
Vol. 3, no. 3, 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, no. 12, December 1958.

HORVATH, S.

Study on the cyclic multiplication of influenza and ND viruses in tissue cultures. Acta microb. hung. 5 no.2:123-131 1958.

1. Institute of Microbiology, University Medical School, Szeged.
Present address: First Department of Medicine, University Medical School, Szeged.

(INFLUENZA VIRUSES, culture
cyclic multiplication in tissue cultures)
(NEWCASTLE DISEASE, virus
cyclic multiplication in tissue cultures)

REVENTH, S.; BALAZS, V.

A quantitative semimicro tissue-culture method and its use in microbiology. I. Quantitative semimicrotissue-culture method. p. 415

ACTA MICROBIOLOGICA. (Magyar Tudományos Akadémia) Budapest, Hungary, Vol. 5, no. 4, 1958. In English

Monthly list of East European Accessions, (EEAI) LC, Vol. 9, no. 1, Jan. 1960

Uncl.

EXCERPTA MEDICA Sec 8 Vol 12/10 Neurology Oct 59

5027. A CASE OF FATAL ASIATIC INFLUENZA WITH SYMPTOMS OF ENCEPHALITIS - Ein Fall fataler asiatischer Influenza mit Encephalitis-symptomen - Horváth S. and Balázs V. J. Intern. Klin., Med. Univ., Szeged
WIEN. KLIN. WSCHR. 1959, 71/14 (239-240) Tables 1 (L, 8)

HORVATH, Istvan, Dr.; BALAZS, Viktor, Dr.

Fatal Asian influenza with symptoms of encephalitis. Orv. hetil. 100 no.7:
267-268 15 Feb 59.

1. A Szegedi Orvostudományi Egyetem I. sz. Belgyógyászati Klinikájának
(igazgató: Hetényi Géza dr. egyetemi tanár) közleménye.

(INFLUENZA, compl.

Asian influenza with sympt. of encephalitis, fatal case (Hun))

(ENCEPHALITIS, etiol. & pathogen.

same)

KARLINGER, Tihamer, dr.; HORVATH, Istvan, dr.

Clinical and pathological data on the pavement cell cancer of the gall bladder. Orv. hetil. 97 no.16:429-431 15 Apr 56.

1. A Pécsi Orvostudományi Egyetem I. sz. Sebészeti Klinikájának (igazgató: Schmidt, Lajos dr. egyetemi tanár) és Kóronctani Intézetének (igazgató: Romhányi, György dr. egyetemi tanár) közleménye.

(GALL BLADDER, neoplasms
epidermoid carcinoma, pathol. (Hun))

(CARCINOMA, EPIDERMOID
gall bladder, pathol. (Hun))

BRAUM, Pal, Dr.; HORVATH, Istvan, Dr.

~~Amlyase and transaminase activities in the serum of healthy and sick persons.~~
Amlyase and transaminase activities in the serum of healthy and sick persons. Orv. hetil. 99 no.35:1210-1214 31 Aug 58.

1. A Budapesti Orvostudományi Egyet, I. sz. Belklinikájának (igazgató: Rusznayk Istvan dr. egyet tanár) közleménye.

(AMYLASES, in blood

determ. in healthy persons & various dis. (Hun))

(TRANSAMINASES, in blood

glutemic oxalacetic & glutamic pyruvic transaminases,

determ. in healthy persons & various dis. (Hun))

BRAUN, Pal, Dr.; PAPP, Miklos, Dr.; HORVATH, Istvan, Dr.

Experimental examination of the transaminase activity of the serum and lymph. Orv. hetil. 99 no.49:1703-1704 7 Dec 58.

1. A Budapesti Orvostudományi Egyetem I. sz. Belklinika-jának (igazgató: Ruzsnyak Istvan dr. egyet. tanár) közleménye.

(TRANSAMINASES, determ.

glutamic - oxalacetic & glutamic - pyruvic transaminases in blood & lymph in dogs, eff. of liver lesions (Hun))

(LYMPH

glutamic - oxalacetic & glutamic - pyruvic transaminase activity in dogs, eff. of liver lesions (Hun))

(LIVER, physiol.

eff. of liver lesions on glutamic - oxalacetic & glutamic - pyruvic transaminase activities in blood & lymph in dogs (Hun))

EXCERPTA MEDICA Sec 3 Vol 14/2 Endocrinology Feb 60

333. EFFECT OF HYPOPHYSECTOMY AND OF ADENOHYPOPHYSIS-TRANS-
PLANTATION ON THE SERUM GLUTAMIC-OXALACETIC TRANS-
AMINASE ACTIVITY IN RATS - Horváth I. W., Tényi M., Dávid
M. A. and Kovács K. First Dept. of Med., Med. Univ., Szeged -
NATURWISSENSCHAFTEN 1959, 46/13 (428-429) Graphs 1

The experiments on rats suggest that the hypophysis has a role in the regulation of the SGOT activity. This effect depends on its hypothalamic connections being intact. The increased activity after hypophysectomy is not the consequence of reduced stimulation of the adrenal cortex, because the increased level of SGOT is not depressed by cortisone.

KOVACS, Kalman; DAVID, Margit; HORVATH, Istvan

Role of the hypothalamus-adenohypophysis system in water metabolism.
(Studies on water metabolism following transplantation of the adenohy-
pophysis). Kiserletes Orvostudomány 11 no.4:382-391 August 1959.

1. Szegedi Orvostudományi Egyetem, I. Belgyógyászati Klinikája.
(PITUITARY GLAND POSTERIOR, transpl)
(DIURESIS, physiol)

KOVACS, Kalman; DAVID, Margit; HORVATH, Istvan

Effect of autotransplantation of the adeno-hypophysis on salt excretion.
Kiserletes Orvostudomány 11 no.4:392-400 August 1959

1. Szegedi Orvostudományi Egyetem I. Belgyógyászati Klinikája.
(PITUITARY GLAND POSTERIOR, transpl)
(WATER ELECTROLYTE BALANCE)

KOVACS, Kalman; HORVATH, Istvan; DAVID, Margit

Effect of adrenalin and acetylcholine on water balance following
hypophysectomy and transplantation. Kiserletes Orvostudomány II
no.4:401-407 August 1959

1. Szegedi Orvostudományi Egyetem I. sz. Belgyógyászati Klinikája.

(EPHNEPHRINE, pharmacol.)

(ACETYLCHOLINE, pharmacol.)

(PITUITARY GLAND POSTERIOR transpl.)

(HYPOPHYSECTOMY eff) ,

(DIURESIS physiol)

HORVATH, Istvan; TENYI, Maria; DAVID, Margit; KOVACS, Kalman

Effect of endocrine factors on serum transaminase in rats.
Kiserletes Orvostud. 11 no.5:463-465 0 '59.

1. Szegedi Orvostudományi Egyetem I. sz. Belgyógyászati
Klinikája.

(TRANSAMINASES blood)
(ENDOCRINE GLANDS physiol)

KOVACS, Kalman; DAVID, Margit; HORVATH, Istvan

On hypothalamic and peripheral regulation of basophilic cells
in the adenohypophysis. Kiserletes Orvostud. 11 no.5:465-473
0 '59.

1. Szegedi Orvostudományi Egyetem I. sz. Belgyógyászati Klinikája.
(PITUITARY GLAND POSTERIOR physiol)
(HYPOTHALAMUS physiol)

KOVACS, Kalman; HORVATH, Istvan; DAVID, Margit

Antidiuretic hormone and activity of the adenohypophysis.
Kiserletes Orvostud. 11 no.5:473-481 0 '59.

1. Szegedi Orvostudományi Egyetem I. sz. Belgyógyászati
Klinikája.

(PITUITARY GLAND POSTERIOR physiol)
(VASOPRESSIN physiol)

KOVACS, Kalman, Dr.; DAVID, Margit, Dr.; HORVATH, Istvan, Dr.

Effect of experimental chlorothiazide antidiuresis in rats. *Magy. belorv. arch.* 12 no.4:104-108 Aug 59

1. A Szegedi Orvostudományi Egyetem I. Belgyógyászati Klinikájának igazgató: igazgató: Dr. Halenyi Géza, egyetemi tanár) Közleménye.
(CHLOROTHIAZIDE, pharmacol)

DAVID, Margit; HORVATH, Istvan; KOVACS, Kalman

On the effect of glucagon on water and electrolyte metabolism.
Kiserletes Orvostudomány 12 no.1:52-59 F '60.

1. Szegedi Orvostudományi Egyetem I. sz. Belklinika.
(GLUCAGON pharmacol)
(WATER ELECTROLYTE BALANCE pharmacol)

DAVID, Margit; HORVATH, Istvan; KOVACS, Kalman

Data on adrenocortical activity in rats after the transplantation of the pituitary. Kiserletes Orvostud. 13 no.1:5-10 Mr '61.

1. Szegedi Orvostudományi Egyetem I. Belgyógyászati Klinikája.
(PITUITARY GLAND physiol)
(ADRENAL CORTEX physiol)

CSERNAY, Laszlo; KOVACS, Kalman; DAVID, Margit; LASZLO, Ferenc; HORVATH,
Istvan; JULESZ, Miklos

Experimental studies on the effect of xylose in rats. Kiserletes
Orvostud. 13 no.1:65-69 Mr '61.

1. Szegedi Orvostudományi Egyetem I. sz. Belgyógyászati Klinikája.
(XYLOSE pharmacol)
(PITUITARY GLAND ANTERIOR physiol)

CSERNAY, L.; KOVACS, K.; DAVID, Margit A.; LASZLO, F.A.; HORVATH, I.;
JULESZ, M.

Experiments to influence xylose excretion in the rat. Acta physiol.
21 no.2:163-168 '62.

1. Ist Department of Medicine, Medical University, Szeged.
(XYLOSE urine) (HYPOPHYSECTOMY experimental)

HORVATH, Ivan

Thermochemical characteristic of the most important east
Slovakian bentonites and its relation to some of their
technological properties. Silikaty 8 no.2:53-58 '64.

1. Geologicky prieskum, n.p., Turcianske Teplice, okres
Martin.

DAVID, M. A.; HORVATH, I. W.; KOVACS, K.

On adrenal cortex function of rats with transplanted adenohipophysis.
Acta med. hung. 17 no.3/4:239-246 '61.

1. I Medizinische Klinik der Medizinischen Universität, Szeged (Director:
Prof. Dr. M. Julesz)

(ADRENAL CORTEX physiol)
(PITUITARY GLAND ANTERIOR transpl)

HORVATH, J.

"The Tecnetron and Spacistor." p. 27

MAGYAR HIRADASTECHNIKA. (Hiradastechnikai Tudományos Egyesület) Budapest,
Hungary, Vol. 10, No.1, Feb. 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959
Uncl.

HORVÁTH, J. ~~JE~~

HORVÁTH, J., DVM; KROŠLÁK, V., DVM.

Czechoslovakia

Brno, Veterinářství, No 12, 1962, pp 359-361

"Peroral Immunization of Poultry against Plague
with Roakin Vaccine."

2

HORVATH, J.

The investigation of the elasticity of rocks
 by J. Horvath, *Journal of Applied Geology*, 1954, 10, 1-10
 (Received for publication July 1, 1953; accepted for publication August 1, 1953)

The frequently neglected question of rock elasticity is treated on the basis of mechanical properties and detailed geophysical investigations. The elasticity of compression has been determined by tests; the measuring of the deformations has been effected with dial indicators calibrated to 0.001 mm. From the characteristics of the stress-strain diagram conclusions can be drawn as to the elastic properties of rocks. It could be ascertained that in case of small strains the rocks do not in the least follow Hooke's law; the diagram of deformation can be considered proportional only with more solid rocks and in case of greater strains. Since there is no proportionality between stress and strain, the Young's modulus cannot be considered constant either. An attempt has also been made to adopt the characteristic than Young's modulus for the deformation. Thus it is recommended that the quotient of the first and outer strain (quotient of elasticity) and the ratio of the elastic and total deformations (coefficient of elasticity) be adopted. Finally the authors suggest the term "modulus of compression" or "modulus of deflection" to be used instead of the term "modulus of elasticity".

pl
 6, 6, 4

HORVATH, J.; BUDAY, F.

The effect of DNA of various origin on the changes of antibiotic production of Streptomyces. Biol kozl 8 no.1:19-23 '60.

1. Agrartudományi Egyetem Mikrobiológiai Tanszéke, Godollo.
Tanszékvezető; dr. Horvath János egyetemi tanár.

*

HORVATH, J.

"Tasks for Innovators in Growing Industrial Crops", v. 10 (UJITOK
LAPJA, Vol. 6, no. 5, Mar. 1954, Budapest, Hungary).

Source: Monthly List of East European Accessions, LC, Vol. 3, no. 5,
May 1954/Unc1.

1951, 1.

"Experiments with a Mosquito Produced in Hungary," p. 7 (Vestnik Larja, Vol. 1, No. 12, June 1951, Budapest, Hungary)

10: Monthly List of East European Accessions, (EEAL), 12, Vol. 3, No. 12, Dec 1951, Uncl.

Vol. 11, J.

"We Should Give More and Better Agricultural Machines to the Villages," p. 6,
(CENTO LIRA, Vol. , No. 12, June 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EML), 13, Vol. 3, No. 12,
Dec. 1954, Uncl.

HORVATH, J.

Dominance in hybrids derived from crossing of streptomycetes.
Acta microbiol. acad. sci. Hung. 10 no.4:347-354 '63-'64

1. Institute of microbiology (Director: J. Horvath); University of Agricultural Sciences, Godollo.

HORVATH, J.

Results in identifying mechanically communicable potato viruses on test plants with special regard to comparative studies. Acta agronom Hung 13 no.1/2:103-135 '64.

1. Laboratorium des Forschungsinstituts für Pflanzenschutz in Keszthely. Submitted August 12, 1963.

HORVATH, J.I.

Contribution to the problem of the entropy increase of quantum mechanical many-body systems. Acta phys Hung 18 no.2:145-148 '65.

1. Institute of Theoretical Physics of Attila Jozsef University, Szeged. Submitted April 20, 1964.

HORVATH, Janos, kohomernok; HALASZ, Jozsef, kohomernok

Theoretical foundations and long-range possibilities for injecting
reducing substances into the blast furnace. Koh lap 97 no.8:387-392
Ag '64.

1. Ozd Metallurgical Works.

HORVATH, Janos

Thermodynamic calculation of the perturbations. Magyar fizikai folyóirat
12 no. 2:173-212 '64.

1. Institute of Theoretical Physics, Attila Jozsef University,
Szeged.

HORVATH, Janos, kohomernok; HALASZ, Jozsef, kohomernok; POLENOSEK, Janos,
kohomernok

Computation of results to be expected in the use of combined blast.
Koh lap 96 no.3:130-137 Mr '63.

HORVATH, Janos

Aim and curriculum of training mathematics and chemistry-
physics teachers at universities. Fiz szemle 13 no.7:220-221
Jl '63.

1. "Fizikai Szemle" szerkeszto bizottsagi tagja.

PENTEK, Istvan; HORVATH, Janos; BIKICS, Zoltan

Oil blasting experiment at the No.1 blast furnace of the Ozd Metallurgical Works. Ipari energia 3 no.8:165-173 Ag '62.

1. Koho- es Gepipari Miniszterium Hitechnikai Kutatoallomas tudomanyos osztalyvezetoje (for Pentek). 2. Ozdi Kohaszati Uzemek fomernoke (for Horvath). 3. Koho- es Gepipari Miniszterium Hitechnikai Kutatoallomas tudomanyos munkatarsa (for Bikics).

PENTEK, Istvan, dr.; BIKICS, Zoltan; HORVATH, Janos; HALASZ, Jozsef

Plant experiences in injecting oil into the Ozd blast furnaces. Koh lap 96 no. 6:277-282 Je '63.

1. Heat Engineering Research Institute, Ministry of Metallurgy and Machine Industry, Miskolc (for Pentek and Bikics).
2. Ozd Metallurgical Works, Ozd (for Horvath and Halasz).

OBLATT, Erzsebet, dr.,; HORVATH, Janos, dr.,; LORINCZ, Janos, dr.

Primary amyloidosis with consecutive macroglossia. Orv. hetil.
96 no.5:133-136 30 Jan 55.

1. A Budapesti Orvostudományi Egyetem II. sz. Belklinikájának
(igazgató: Haynal Imre dr. egyetemi tanár) és az I. sz. Kórházának
és Kísérleti Raktáratok Intézetének (igazgató: Baló József dr.
egyetemi tanár) közleménye.

(AMYLOIDOSIS, pathology,
macroglossia, fatal)

(TONGUE, diseases,
macroglossia in amyloidosis, fatal)

HORVATH, J.

HORVATH, J. - First experiences of a treatment of cooling water with chloramine
in Hungary.
p. 310, Vol. 9, no. 8, Aug. 1956
Magyar Energiagazdasag - Budapest, Hungary

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

HORVATH, Janos, okleveles gepeszmernok, kazanbiztos

Calculation of water circulation in boiler cooling grills.
Energia es atom 15 no.5:209-213 My '62.

HORVATH, Janos, okleveles gapeszmernok

Water circulation in the cooling grills of boilers. Energia es
atom 16 no.1:37-40 Ja '63.

1. Kazanbiztos.

HORVATH, J.

The quota of various production sectors in the production of shoe industry,
p. 126.

BOR ES CIPOTECHNIKA. (Boripari Tudományos Egyesület mint a Magyar Tudományos
Egyesületek Szövetsége Tagegyesülete) Budapest, Hungary. Vol. 9, no. 4, Aug. 1959.

Monthly List of East Europe Accessions (EEAI) LC, Vol. 8, no. 11, November 1959.
Uncl.

HORVATH, Janos

On the development of the quality of the products of the shoe industry. Bor oipo 10 no.1:31-32 Ja '60.

1. Kozponti Statisztikai Hivatal.

HORVATH, Janos

Technical level of our shoe manufacture. Stat szemle 38
no.4:389-394 Ap 1960.

HORVATH, Janos, kohomernok; HALASZ, Jozsef, kohomernok

Hungarian and foreign achievements in injecting hydrocarbons into
blast furnaces. Koh lap 97 no.11:526-531 N '64.

1. Ozd Metallurgical Works.

HORVATH, Janos, okleveles kohomernok; HALASZ, Jozsef, okleveles kohomernok

Remarks on Andor Schedel's studies entitled "New ways of ore dressing",
and "Role of limestone in the blast furnace." Koh lap 98 no.4:172-
175 Ap '65.

1. ~~Ozd~~ Metallurgical Works, Ozd.

HORVATH, J.

"Innovations for More Reliable Power Output", p. 4

"78 in 1951, 515 in 1952, 523 in 1953; Innovation Suggestions at the Dorog Power Plant", p. 5

"Activity of the Innovator Movement at the Budapest Power Plants", p. 5

"Electrical Household Appliances of a New Type", p. 6

"Innovations and Tasks in Power Line Construction", p. 6

"Achievements of Innovators in the Electric Industry", p. 7

"From the Experiences of Soviet Innovators", p. 8 (UJITOK LAPJA, Vol. 5, no. 23, Dec. 1953, Budapest, Hungary).

Source: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.

HORVATH, J.

AC-electric circuits.

P. 126 (RADIOTECHNIKA) Budapest, Hungary Vol. 7, No. 1, Mar. 1957.

SO: Monthly Index of East European Accessions (AEEI) Vol. 6, No. 11, November 1957.

HORVATH, J.

AC electric circuits. p. 94. (Radiotechnika, Vol. 7, No. 3, May 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

HORVATH, J., Vasvari, B.

Generalized linear electro-dynamics. I. In English. p. 277.
(ACTA PHYSICA. Vol. 7, no. 3, 1957, Hungary)

SO: Monthly List of East European Accessions (EAL) LC. Vol. 6, no. 12, Dec. 1957
Uncl.

HORVATH, J.; SEEMER, F.

Acquaintance with the transistor.

P. 187 (RADIOTECHNIKA) Budapest, Hungary Vol. 7, No. 6, Aug. 1957.

SO: Monthly Index of East European Accessions (AEEI) Vol. 6, No. 11 November 1957.

HORVATH, J.; SZEKER, F.

"Becoming acquainted with transistors; transistor circuits."

p. 24 (Radiotechnika) Vol. 8, no. 1, Jan. 1958
Budapest, Hungary

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

HORVATH, Janos (Zalaegerszeg, Martirok u.30); FIKO, Stephan
(Trondheim, Norway)

TV - DX. Radiotechnika 10 no.8:240-241 Ag '60.

HORVATH, Janos (HG 1 KZG) operators:

Television reception possibilities, antennas. Radiotechnika
13 no.6:228-229 Ja '63.

PENTEK, Istvan, dr.; BIKICS, Zoltan; HORVATH, Janos, okleveles mernok;
HALASZ, Jozsef, okleveles mernok

Plant experiences in injecting oil into the Ozd blast
furnaces. Koh lap 96 no.5:222-227 My.'63.

1. Koho- es Gepipari Miniszterium Tezelestechikai Kutato
Allomas (for Pentek and Bikics).
2. Ozdi Kohaszati Uzemek (for Horvath and Halasz).

HORVATH, J.

"The 50-year-old Langevin equation, the basic equation of molecular dynamics." p. 303

FIZIKAI SZEMLE. (Eotvos Lorand Fizikai Tarsulat) Budapest, Hungary, Vol. 8, No. 10, Dec. 1958

Monthly List of East European Acessions (EEAI) LC, Vol. 8, No. 6, June 1959.
Uncl.

HORVATH, Janos

Classic theory of physical spaces and the geometrical structure of a space. Fiz szemle 10 no.2:35-41 F '60.

1. Szegedi Tudományegyetem Elméleti Fizikai Intézete, és "Fizikai Szemle" szerkesztő bizottsági tagja.

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H/016/60/010/07/01/009

B009/B064

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AUTHOR: Horváth, János, Doctor

TITLE: Equation of State of Real Gases

PERIODICAL: Fizikai Szemle, 1960, Vol. 10, No. 7, pp. 195 - 202

TEXT: The discovery of the different behavior of real gases as compared to ideal gases induced van der Waals to attempt the derivation of their equation of state. Clausius (1880) made the first attempt, followed by several scientists, towards a generalization; Kamerlingh Onnes (1901) found the most general form. The present paper deals with the statistical foundation of the van der Waals equation and the author writes down the Hamiltonian of the monatomic homogeneous gases, which describes a system of real gases. The approximate method developed by J. E. and M. G. Mayer for calculating the configuration integral is mentioned. H. D. Ursell worked out the relevant exact computations in 1927. In calculating the configuration sum, the group integrals b_1 , b_2 etc (cluster integrals) are written down.

As regards the more complicated calculations, the results achieved by

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Equation of State of Real Gases

H/016/60/010/07/01/009
B009/B064

S. H. Harrison (1938) and F. Kurth (1951) are pointed out; subsequently, the final result - the equation of state - is written down:

$PV = NkT \sum_n a_n \left(\frac{N}{V}\right)^n$, where N denotes the number of molecules, and

$a_0 = 1$, $a_1 = -b_2$, $a_2 = 2b_3 + 4b_2^2$... The potential of the force occurring between the molecules is defined by the Lennard-Jones potential whose parameter χ (depth of the potential well) and σ (diameter of the molecules and atoms, respectively) are calculated and tabulated for A, Ne, He, N_2 , H_2 (Table 1). On the basis of the parameters it is possible to determine the third virial coefficient C of the equation of state. The calculated and the measured curves of $C(T)$ are in rather good agreement. Such an approximation is permissible for a number of problems. This question has cropped up recently, since a more exact approximation is necessary for the study of high pressures (explosions). There are 6 figures and 1 table.

ASSOCIATION: Szegedi Tudományegyetem Elméleti Fizikai Intézete (Szeged
University of Sciences, Institute of Theoretical Physics)

Card 2/2

4

HORVATH, Janos

Remarks about and correction to the paper entitled "Degrees of internal freedom of physical spaces and the geometrical interpretation of the isobar spin space." Magy fiz folyoir 10 no.5:365-385 '62.

1. Szegedi Tudományegyetem Elmeleti Fizikai Intézete, Szeged.